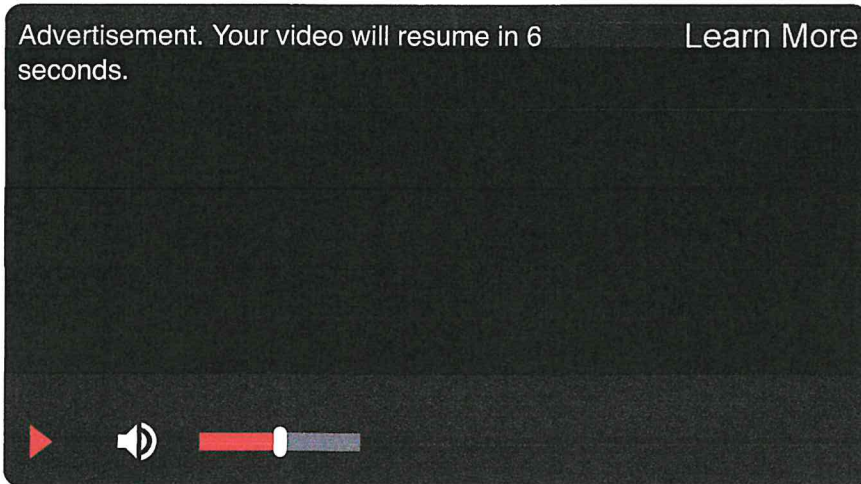


EXHIBIT F





Research shows airflow needed to prevent spread of COVID-19 in businesses and restaurants

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Researchers from the University of Oregon found air flow can make a big difference in the spread of viruses like COVID-19 when people are inside closed spaces.

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By: [Litsa Pappas](#)

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BOSTON — Researchers from the University of Oregon found air flow can make a big difference in the spread of viruses like COVID-19 when people are inside closed spaces.

“So it’s really just the notion that the particles may be caught up in airstreams and pushed further than you might anticipate,” said Kevin Van Den Wymelenberg, Professor of Architecture at the University of Oregon.

So if you’re sitting in a restaurant – six feet apart – that may not exactly keep you from getting sick.

Content Continues Below

Kevin Van Den Wymelenberg is one of the authors behind this new study. His team created [this visual](#) to show how a virus can easily spread indoors from person to person across the room, if there’s no filtration or fresh air.

“I think we should be looking for ways to increase the outdoor air flow,” said Van Den Wymelenberg. “Then in the scenarios where that’s difficult, there are secondary strategies that we could pursue, including increased filtration, access to sunlight, potentially some indoor humidification and perhaps some in-room filtration if central, mechanical filtration is not possible.”

MIT professor Lydia Bourouiba says the video simulation is a great tool to educate the public on air flow and how fresh air can really help prevent the spread of a virus, but she says this visual doesn’t quantify the impact of COVID-19 indoors.

“How far it travels, what the concentration is, the speed, evolution of these droplets and the virus in it,” said Bourouiba. “All of those are not resolved whatsoever in these kinds of numerical schemes.”

For instance, Bourouiba says simply opening a window may not be the

solution for every restaurant to keep people safe.

“So if you have a source that is sitting and an air flow coming from behind that source even if that’s fresh air, that would basically engulf more of those contaminants, disperse them to individuals in that line of direction of the flow,” said Bourouiba.

Van Den Wymelenberg agrees that every building is different and will need its own air filtration system, but he hopes his study will encourage more people to look for these solutions – before reopening for business.

“You can actually test your building for the presence of this virus and you can implement strategies to minimize risk, and you can test your building again and see if that solution, that strategy was effective,” said Van Den Wymelenberg.

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